

## EXPLORATION TECHNICAL MEMORANDUM

### Utah Coal Regulatory Program

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June 9, 2009

TO: Internal File

THRU: Steve Demczak, Lead *SDHMS*

FROM: April A. Abate, Environmental Scientist II *GAA 6-16-2009*

RE: Notice of Intent to Conduct Minor Coal Exploration, Canyon Fuel Company LLC, Dugout Canyon Mine, C/007/0039 and Project # 3301

#### SUMMARY:

On March 23, 2009, Ark Land Company (Applicant), an Arch Coal Inc. subsidiary, submitted a Notice of Intent (NOI) to Conduct Minor Coal Exploration to the Division on behalf of Canyon Fuel Company LLC Dugout Canyon Mine. The minor coal exploration will consist of one drill hole planned for 2009 within the Dugout Canyon Mine Permit Boundary private surface owned by Canyon Fuel Company. The coal will be leased through Utah State Coal Lease (ML-42648).

The Division reviewed this amendment under task #3255 and returned the application as deficient on April 6, 2009. The deficiencies outlined below have been addressed:

**[R645-202-200.235, 301-731.121]** The applicant has committed to constructing a three foot minimum berm around the perimeter of the pad to ensure no runoff occurs. The Division reserves the right to conduct a site inspection to evaluate the proximity of the drill site to the stream drainage channel to determine if any water quality impacts to the stream are possible and adequate sediment control measures are in place. Upon inspection of the site, the Division may require additional sediment control measures are implemented, such as hay bales or excelsior logs.

**[R645-201-100.130 and 202-200.234]** The Applicant has filed the necessary extension with the Division of Water Rights showing that the water rights applications are valid while drilling and water pumping is occurring.

**[R645-202-200.236]** The Applicant has committed to provide MSDS sheets for the drilling fluids, chemicals or other products used in drilling. The Applicant has also committed to disposing of all excess cores at the waste rock site.

**The application meets the R645 Coal Rules and is recommended for approval at this time.**

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**EXPLORATION TECHNICAL ANALYSIS:**

## **COMPLIANCE DUTIES**

Regulatory Reference: 30 CFR 772.13; R645-202.

## **OPERATIONAL STANDARDS**

Regulatory Reference: 30 CFR 772.13; R645-202-100.

### **Analysis:**

#### **Hydrologic Balance**

The applicant initially stated that a berm from one to three feet high would be installed around the drill pad. The revised application states on Page 12 that a minimum berm of three feet will be placed around the exploration site and the pad will be sloped to direct water to the mud pit.

The applicant initially applied for a Temporary Change of Water to the Utah Division of Water Rights for Application Nos. 91-5024 and 91-409 filed on April 25, 2008 with a one-year approval period. These applications would have expired by the time the drilling was to commence in July 2009. The revised application shows that the Water Rights for Application Nos. 91-5024 and 91-409 were refiled on June 2, 2009, which would allow the applications to be valid during the period of exploration.

#### **Acid- or toxic forming materials**

The Applicant initially indicated that excess drill cores exhibiting acid potential would be either "removed for off-site disposal or buried beneath four feet of cover." There was no discussion as to how drill cores will be disposed of even if they do not exhibit acid potential. Page 9 of the revised application indicates that all excess cores will be taken to the waste rock site.

### **Findings:**

[R645-202-200.235, 301-731.121] The applicant has committed to constructing a three-foot berm minimum around the perimeter of the pad to ensure no runoff occurs. The Division reserves the right to conduct a site inspection to evaluate the proximity of the drill site to the stream drainage channel to determine if any water quality impacts to the stream are possible and adequate sediment control measures are in place. Upon

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**RECOMMENDATIONS:**

**The NOI is recommended for approval at this time.**